

Please amend claim 41, 45, 46, 50, 53, 54 and 58 as follows. For convenience, unamended claims are shown in a smaller italicized font:

41. (Amended) A method of tuning a spatial separation between a first optical port of an optical circulator and a third optical port of the optical circulator comprising:

providing the optical circulator, and the optical circulator having a longitudinal axis, and the optical circulator comprising a first optical port located at an end of the optical circulator, a second optical port located at a distal end of the optical circulator from the first optical port along the longitudinal axis, a third optical port located at the same end of the optical circulator as the first optical port, a first beam angle turner located along the longitudinal axis between the first optical port and the second optical port; and a second beam angle turner located along the longitudinal axis distally from the first beam angle turner, and the first beam angle turner and the second beam angle turner being separated by a complete gap; and

adjusting a length of the complete gap causing a corresponding adjustment in a spatial separation between a first light beam travelling from the first optical port to the second optical port and a second light beam travelling from the second optical port to the third optical port, wherein the location of the first light beam and the second light beam define the location of the first optical port and the third optical port.

42. *The method of claim 41, wherein the first beam angle turner or second beam angle turner comprises a Rochon prism, a Wollaston prism, a modified Rochon prism, a modified Wollaston prism, or a pair of birefringent wedges separated by a complete gap.*

43. *The method of claim 41, wherein each of the first beam angle turners or second beam angle turners comprise two or more Rochon prisms, Wollaston prisms, modified Rochon prisms, modified Wollaston prisms, or a pair of birefringent wedges separated by a complete gap.*

44. *The method of claim 41, wherein the optical circulator comprises a polarization mode dispersion free optical circulator.*

45. (Amended) The method of claim 41, wherein the optical circulator comprises four or more optical ports.

46. (Amended) A method of transmitting an optical beam comprising:

passing the optical beam through a nonreciprocal optical device comprising a first compound beam angle turner and a second compound beam angle turner, wherein both an e-ray and an o-ray of the optical beam propagate through both the first beam angle turner and the second beam angle turner; and

wherein any polarization rotators of which the nonreciprocal optical device is comprised are nonreciprocal polarization rotators.

47. *The method of claim 46, wherein the first beam angle turner or second beam angle turner comprises a Rochon prism, a Wollaston prism, a modified Rochon prism, a modified Wollaston prism, or a pair of birefringent wedges separated by a complete gap.*

50. (Amended) An optical circulator comprising:

a nonreciprocal optical device comprising a first compound beam angle turner and a second compound beam angle turner, wherein both an e-ray and an o-ray of the optical beam propagate through both the first beam angle turner and the second beam angle turner; and

wherein any polarization rotators of which the nonreciprocal optical device is comprised are nonreciprocal polarization rotators.

51. *The optical circulator of claim 50, wherein the first beam angle turner or second beam angle turner comprises a Rochon prism, a Wollaston prism, a modified Rochon prism, a modified Wollaston prism, or a pair-of birefringent wedges separated by a complete gap.*

52. *The optical circulator of claim 50, wherein the optical circulator comprises a polarization mode dispersion free optical circulator.*

53. (Amended) The optical circulator of claim 50, wherein the optical circulator comprises four or more optical ports.

54. (Amended) An optical circulator, and the optical circulator having a longitudinal axis, and the optical circulator comprising a first optical port located at an end of the optical circulator, a second optical port located at a distal end of the optical circulator from the first optical port along the longitudinal axis, the third optical port located at the same end of the optical circulator

as the first optical port, and the optical circulator comprising:

a first beam angle turning means located along the longitudinal axis between the first optical port and the second optical port, for turning a beam through an angle;

a second beam angle turning means located along the longitudinal axis distally from the first beam angle turner, for turning a beam through an angle, and the first beam angle turning means and the second beam angle turning means being separated by a complete gap; and

wherein adjusting the length of the complete gap causes a corresponding adjustment in a spatial separation between a first light beam travelling from the first optical port to the second optical port and a second light beam travelling from the second optical port to the third optical port, wherein the location of the first light beam and the second light beam define the location of the first optical port and the third optical port.

55. *The optical circulator of claim 54, wherein the first beam angle turning means or second beam angle turning means comprises a Rochon prism, a Wollaston prism, a modified Rochon prism, a modified Wollaston prism or a pair of birefringent wedges separated by a complete gap.*

56. *The optical circulator of claim 54, wherein each of the first beam angle turning means or second beam angle turning means comprise two or more Rochon prisms, Wollaston prisms, modified Rochon prisms, modified Wollaston prisms, or a pair of birefringent wedges separated by a complete gap.*

57 *The optical circulator of claim 54, wherein the optical circulator comprises a polarization mode dispersion free optical circulator.*

58. (Amended) The optical circulator of claim 54, wherein the optical circulator comprises four or more optical ports.

Please add claims 59-63.

59. (New) An optical circulator having a longitudinal axis, the optical circulator comprising a first optical port located at a proximal end of the optical circulator, a second optical port located at a distal end of the optical circulator from the first optical port along the longitudinal axis, the third optical port located at the same end of the optical circulator as the first optical port, and the optical circulator comprising:

a first compound beam angle turning means located along the longitudinal axis between the first optical port and the second optical port, for turning a beam through an angle;

a second compound beam angle turning means located along the longitudinal axis distally from the first compound beam angle turner, for turning a beam through an angle, and the first compound beam angle turning means and the second compound beam angle turning means being separated by a complete gap, a length of said gap being adjustable to cause a corresponding adjustment in a spatial separation between a first light beam traveling from the first optical port to the second optical port and a second light beam traveling from the second optical port to the third optical port; and

wherein the location of the first light beam and the second light beam define the location of the first optical port and the third optical port.

60. (New) The optical circulator of claim 59, wherein the first compound beam angle turning means or second compound beam angle turning means comprises a Rochon prism, a Wollaston prism, a modified Rochon prism, a modified Wollaston prism or a pair of birefringent wedges separated by a complete gap.

61. (New) The optical circulator of claim 59, wherein each of the first compound beam angle turning means or second compound beam angle turning means comprise two or more Rochon prisms, Wollaston prisms, modified Rochon prisms, modified Wollaston prisms, or a pair of birefringent wedges separated by a complete gap.

62. (New) The optical circulator of claim 59, wherein the optical circulator comprises a polarization mode dispersion free optical circulator.

63. (New) The optical circulator of claim 59, wherein the optical circulator comprises four or more optical ports.